CNN Image Classification Code

```
import matplotlib.pyplot as plt

import tensorflow as tf

from tensorflow.keras import datasets, layers, models

(train_images, train_labels), (test_images, test_labels) = datasets.fashion_mnist.load_data()

train_images, test_images = train_images / 255.0, test_images / 255.0

model = tf.keras.models.Sequential([ layers.Flatten(input_shape=(28,28)),

layers.Dense(128, activation = "relu"), #Adding of hidden layer

layers.Dropout(0.2),

layers.Dense(10),

])

model.compile(optimizer='adam',
loss=tf.keras.losses.SparseCategoricalCrossentropy(from_logits=True),

metrics=['accuracy']) history = model.fit(train_images, train_labels, epochs = 10, validation_data =
(test_images, test_labels))

treat_loss, test_acc = model.evaluate(test_images, test_labels)

print(f"Test accuracy: {test_acc}")

plt.plot(history.history['accuracy'], label='accuracy')

plt.plot(history.history['val_accuracy'], label='val_accuracy')

plt.xlabel('Epoch')

plt.ylabel('Accuracy')

plt.legend(loc='upper left')

plt.show()
```